

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

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Serial No.: Unknown

Filed: Concurrently Herewith

For: YEAST STRAINS FOR THE
PRODUCTION OF LACTIC ACID

Prior Serial No.: 09/508,277

Prior Group Art Unit: 1652

Prior Examiner: K. Kerr

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(2005470)



PRELIMINARY AMENDMENT

BOX PATENT APPLICATION
Assistant Commissioner for Patents
Washington, D.C. 20231

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I hereby certify that this paper or fee is being deposited with the United States Postal Service with sufficient postage "EXPRESS MAIL POST OFFICE TO ADDRESSEE" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to: BOX PATENT APPLICATION, Assistant Commissioner for Patents, Washington D.C. 20231
<i>Pam Mitchell</i> Pam Mitchell

Sir:

Please amend this application as follows:

In the Specification

At p. 1, line 1, insert --This application is a continuation of Application Ser. No. 09/508,277, filed March 7, 2000, which is a 35 U.S.C. §371 national phase entry of PCT/EP98/05758, filed September 11, 1998.--

In the Claims

Please cancel claims 1-36, without prejudice.

Please add claims 37-44, as follows:

--37. (New) A process for the preparation of lactic acid, comprising:

growing, in a fermentation medium containing a carbon source, a yeast strain transformed with at least one copy of a gene coding for lactate dehydrogenase functionally linked to a promoter sequence allowing the expression of the gene in the yeast strain, wherein the yeast strain produces lactic acid at a yield from 0.5 gram lactic acid per gram glucose to 1 gram lactic acid per gram glucose, and wherein the transformed yeast strain lacks ethanol production ability or has a reduced ethanol production ability with respect to a wild-type yeast of the same strain which has been similarly transformed with the gene encoding lactate dehydrogenase, to produce lactic acid, wherein the yeast strain can grow or maintain its population at the pH of the fermentation medium; and,

recovering the lactic acid from the fermentation medium.

38. (New) The process of claim 37, wherein the carbon source is selected from glucose, fructose, galactose, lactose, sucrose, raffinose, maltose, cellobiose, arabinose, or xylose.

39. (New) The process of claim 37, wherein the fermentation medium contains less than 5 mM of Mg^{++} , less than 0.02 mM of Zn^{++} , or both.

40. (New) The process of claim 37, wherein the fermentation medium has a pH of 7 or less.

41. (New) The process of claim 40, wherein the pH is 4.5 or less.
42. (New) The process of claim 71, wherein the pH is 3 or less.
43. (New) The process of claim 37, wherein the lactic acid is D-lactic acid or L-lactic acid.
44. (New) The process of claim 37, wherein recovering comprises extracting lactic acid into an immiscible solvent phase.--

Should any additional fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason, the Assistant Commissioner is authorized to deduct said fees from Williams, Morgan & Amerson, P.C. Deposit Account No. 50-0786/2027.547096/RFE.

Respectfully submitted,



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